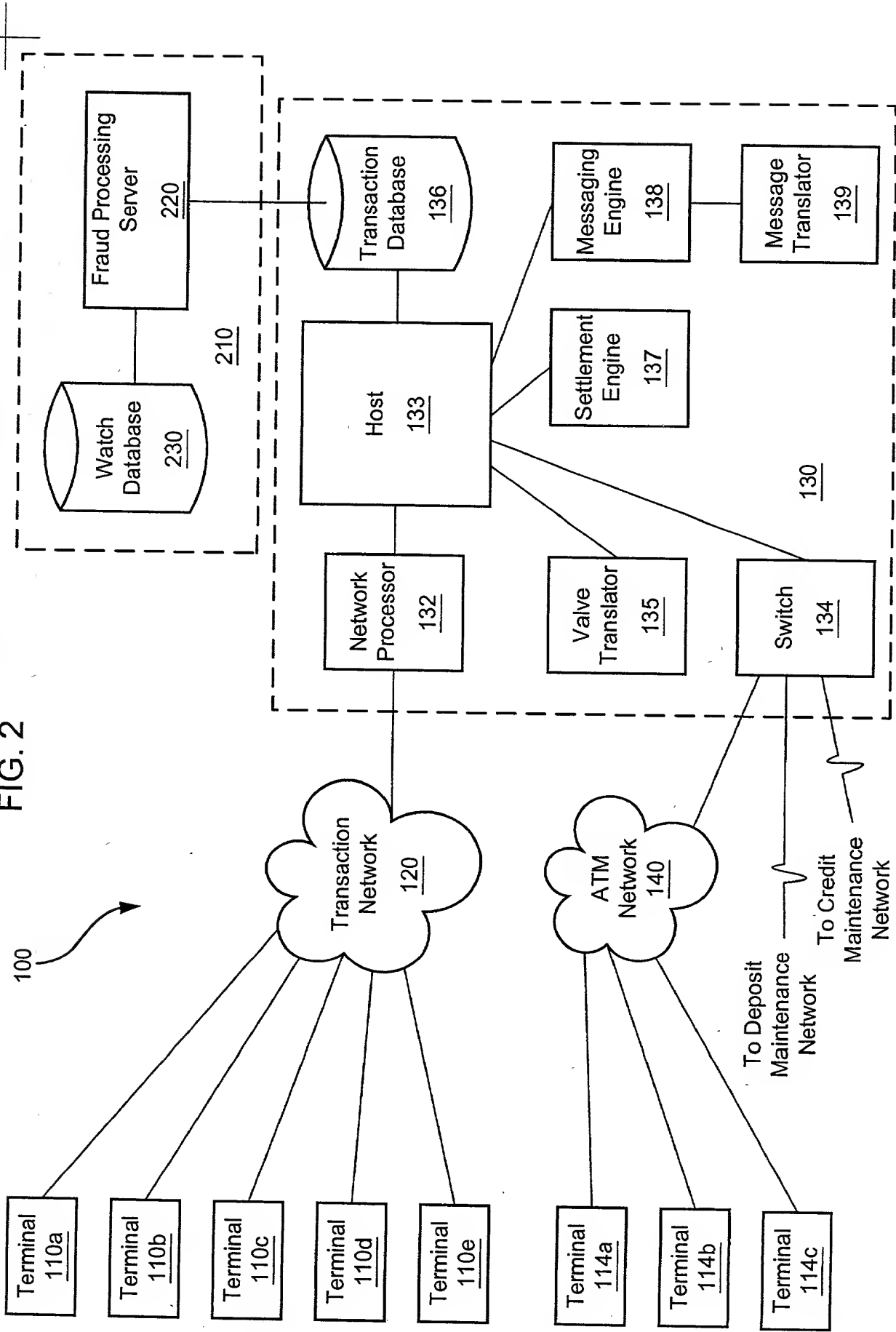


FIG. 1

FIG. 2 is a block diagram of a system 100 for processing transactions. The system 100 includes a Transaction Network 120 and an ATM Network 140. The Transaction Network 120 is connected to five terminals: Terminal 110a, Terminal 110b, Terminal 110c, Terminal 110d, and Terminal 110e. The ATM Network 140 is connected to three terminals: Terminal 114a, Terminal 114b, and Terminal 114c. The Transaction Network 120 is connected to a Host 133, which is connected to a Network Processor 132, a Transaction Database 136, a Settlement Engine 137, a Valve Translator 135, and a Switch 134. The Host 133 is also connected to a Messaging Engine 138, which is connected to a Message Translator 139. The Host 133 is further connected to a Fraud Processing Server 220, which is connected to a Watch Database 230. The Fraud Processing Server 220 and the Watch Database 230 are part of a sub-system 210. The Switch 134 is connected to a Deposit Maintenance Network, a Credit Maintenance Network, and a general Maintenance Network.

FIG. 2



300

DATA	RECORD 1	RECORD 2	RECORD 3	RECORD 4	RECORD 5	RECORD 6
sNameLast	Nelson	Johnson	Nelson	Smart	Nelson	Nelson
sNameMiddle	M.	Sam	Bertha		Mark	
sNameFirst	Jack	Bob	Sally	Edna	Jack	Jack
sPhone	1111111111	1111111111	2222222222	3333333333	1111199999	1111188888
sAddress	1411 XYZ Lane	911 PDQ Lane	345 GQ Lane	234 Washington St.	348 Cherry St.	987 Villa Row
sAgentType	CS	CS	CS	CS	PC	PC
sAgentNumber	234567	234569	876512	987651	123456	654321
sDate	01/18/2002	01/18/2002	01/18/2002	01/19/2002	01/18/2002	01/18/2002
sAmountIn	4999	4999	765	3999	1000	100
sValueTypeln	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
TransactionCost	20	20	20	20	20	20
rNameLast	Smart	Smart	Character	Smith	Fix	Rose
rNameMiddle	P.			B.		
rNameFirst	Edna	Edna	Bert	John	Needmy	Kevin
rPhone	3333333333	3333333333	7865786578	1414141414	6543897000	5467844444
rAddress	1567 Jackson St.	1567 Jackson St.	1 Sesame St.	1212 Middle East	34 Badpart St.	56 Greenwich
rAgentType	CS	CS	ATM	BANK	CS	CS
rAgentNumber	987651	987652	900000	765410	154300	432890
rDate	1/19/2002	1/19/2002	1/19/2002	1/21/2002	1/19/2002	1/19/2002
rAmountOut	4999	4999	765	14986	1000	100
rValueTypeln	Dollars	Dollars	Dollars	SA Riyals	Dollars	Dollars

A

B

FIG. 3a

FIG. 3b is a schematic diagram of a data structure 300. The data structure 300 is a table with 10 columns and 30 rows. The columns are labeled RECORD 7, RECORD 8, RECORD 9, and RECORD 10. The rows are labeled with names and addresses. The data structure 300 is divided into two sections, A and B, by a dashed line. Section A contains rows 1 through 15, and Section B contains rows 16 through 30. The data structure 300 is a table with 10 columns and 30 rows. The columns are labeled RECORD 7, RECORD 8, RECORD 9, and RECORD 10. The rows are labeled with names and addresses. The data structure 300 is divided into two sections, A and B, by a dashed line. Section A contains rows 1 through 15, and Section B contains rows 16 through 30.

300

RECORD 7	RECORD 8	RECORD 9	RECORD 10
Smart	Jones	Jones	Nielson
	Larry	Larry	Karrie
Betty	Ed	Edward	Jackson
3333333333	5555555554	6666666666	1111188888
5251 Estes	124 Illinois	3641	867 Indiana
Wy.	Ave.	Frederick St.	Ave.
Kiosk	CS	ATM	Kiosk
908756	765432	876543	645867
01/19/2002	01/18/2002	01/21/2002	01/18/2002
4999	456	2500	500
Dollars	Dollars	Dollars	Dollars
20	20	20	20
Smith	Corporation	Corporation	Smith
B.			B.
John	Sales	Sales	John
5656565656	76543210	76543210	5678123465
1212 Middle	50 NY St.	50 NY St.	1212 Middle
East			East
BANK	MT	MT	BANK
765410	765432	876543	765410
1/21/2002	1/18/2002	1/21/2002	1/21/2002
18746	456	2500	1775
SA Riyals	Dollars	Dollars	SA Riyals

A

B

FIG. 3b

FIG. 4a is a schematic diagram of a data structure 400. The data structure 400 is a table with six columns and multiple rows. The columns are labeled RECORD 1, RECORD 2, RECORD 3, RECORD 4, RECORD 5, and RECORD 6. The rows are labeled with data field names: sNameLast, sNameFirst, sPhone, sAgentNumber, sDate, rNameLast, rNameFirst, rPhone, and rAgentNumber. The data is organized into two groups, A and B, indicated by brackets on the right side of the table. Group A includes RECORD 1 through RECORD 4, and Group B includes RECORD 5 and RECORD 6. The data values are as follows:

400

	305	310	315	320	325	330	335
	RECORD 1	RECORD 2	RECORD 3	RECORD 4	RECORD 5	RECORD 6	
301	sNameLast	Nelson	Johnson	Nelson	Smart	Nelsen	Nelson
307							
309	sNameFirst	Jack	Bob	Sally	Edna	Jack	Jack
	sPhone	1111111111	1111111111	2222222222	3333333333	111199999	1111188888
317							
319	sAgentNumber	234567	234569	876512	987651	123456	654321
	sDate	01/18/2002	01/18/2002	01/18/2002	01/19/2002	01/18/2002	01/18/2002
329	rNameLast	Smart	Smart	Character	Smith	Fix	Rose
333							
337	rNameFirst	Edna	Edna	Bert	John	Needmy	Kevin
	rPhone	3333333333	3333333333	7865786578	1414141414	6543897000	546784444
343							
	rAgentNumber	987651	987652	900000	765410	154300	432890

A

B

FIG. 4a

FIG. 4b is a schematic diagram of a data structure 400. The data structure 400 is a table with four columns labeled RECORD 7, RECORD 8, RECORD 9, and RECORD 10. The table contains data for various individuals and entities, including Smart, Jones, Ed, Betty, 3333333333, 5555555554, 6666666666, 1111188888, 908756, 765432, 876543, 01/19/2002, 01/21/2002, 01/18/2002, 645867, Smith, Corporation, John, Sales, 5656565656, 76543210, 76543210, 5467812345, 765410, 765432, 876543, and 765410. The table is divided into two sections, A and B, by a dashed line. Section A contains the first three columns (RECORD 7, RECORD 8, RECORD 9) and Section B contains the fourth column (RECORD 10). The table is also divided into two sections, A and B, by a dashed line. Section A contains the first three columns (RECORD 7, RECORD 8, RECORD 9) and Section B contains the fourth column (RECORD 10).

400

RECORD 7	RECORD 8	RECORD 9	RECORD 10
Smart	Jones	Jones	Nielson
Betty	Ed	Edward	Jackson
3333333333	5555555554	6666666666	1111188888
908756	765432	876543	645867
01/19/2002	01/18/2002	01/21/2002	01/18/2002
Smith	Corporation	Corporation	Smith
John	Sales	Sales	John
5656565656	76543210	76543210	5467812345
765410	765432	876543	765410

FIG. 4b

500a

Reference Designator	NameLast	NameFirst	Phone	MasterLocationIn	MasterLocationOut	TimeStamp
000000001	Alexander	John	7680000000	84604	14850	1/15/2002
	Jones	Edward	5555555555			

FIG. 5

500b

Reference Designator	NameLast	NameFirst	Phone	MasterLocationIn	MasterLocationOut	TimeStamp
000000001	Alexander	John	5555555555	84604	14850	1/15/2002
	Jones	Edward				

FIG. 6

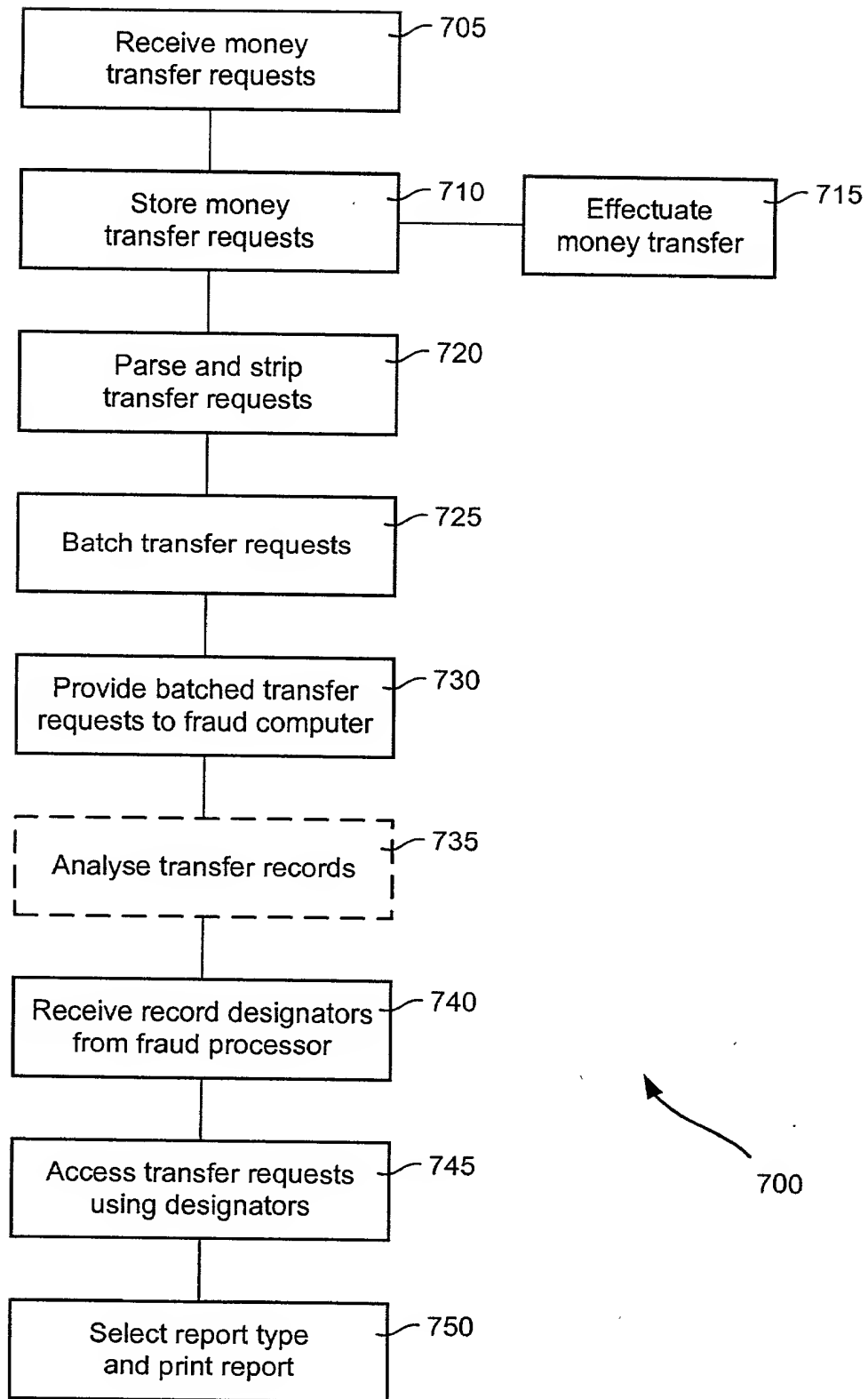


FIG. 7a



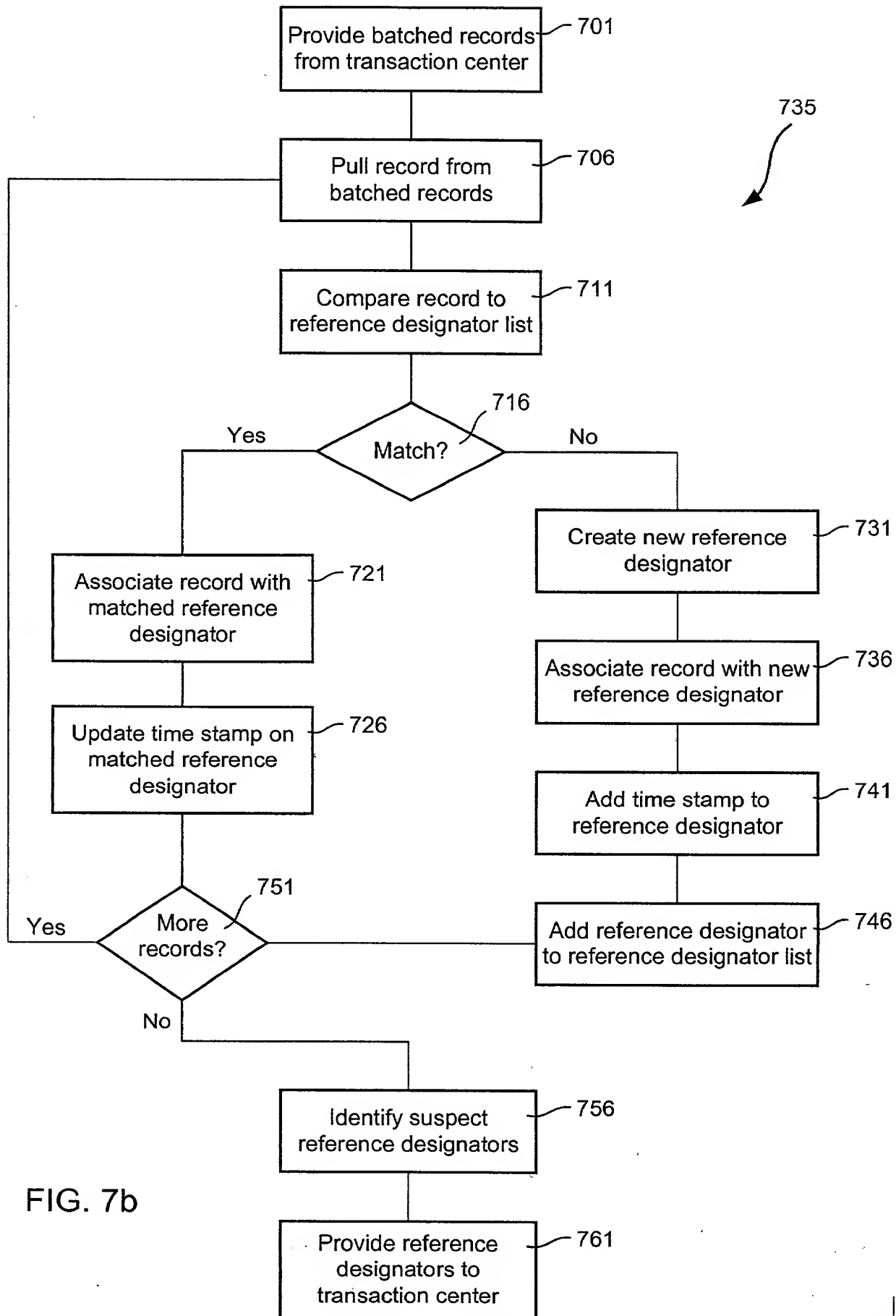


FIG. 7b

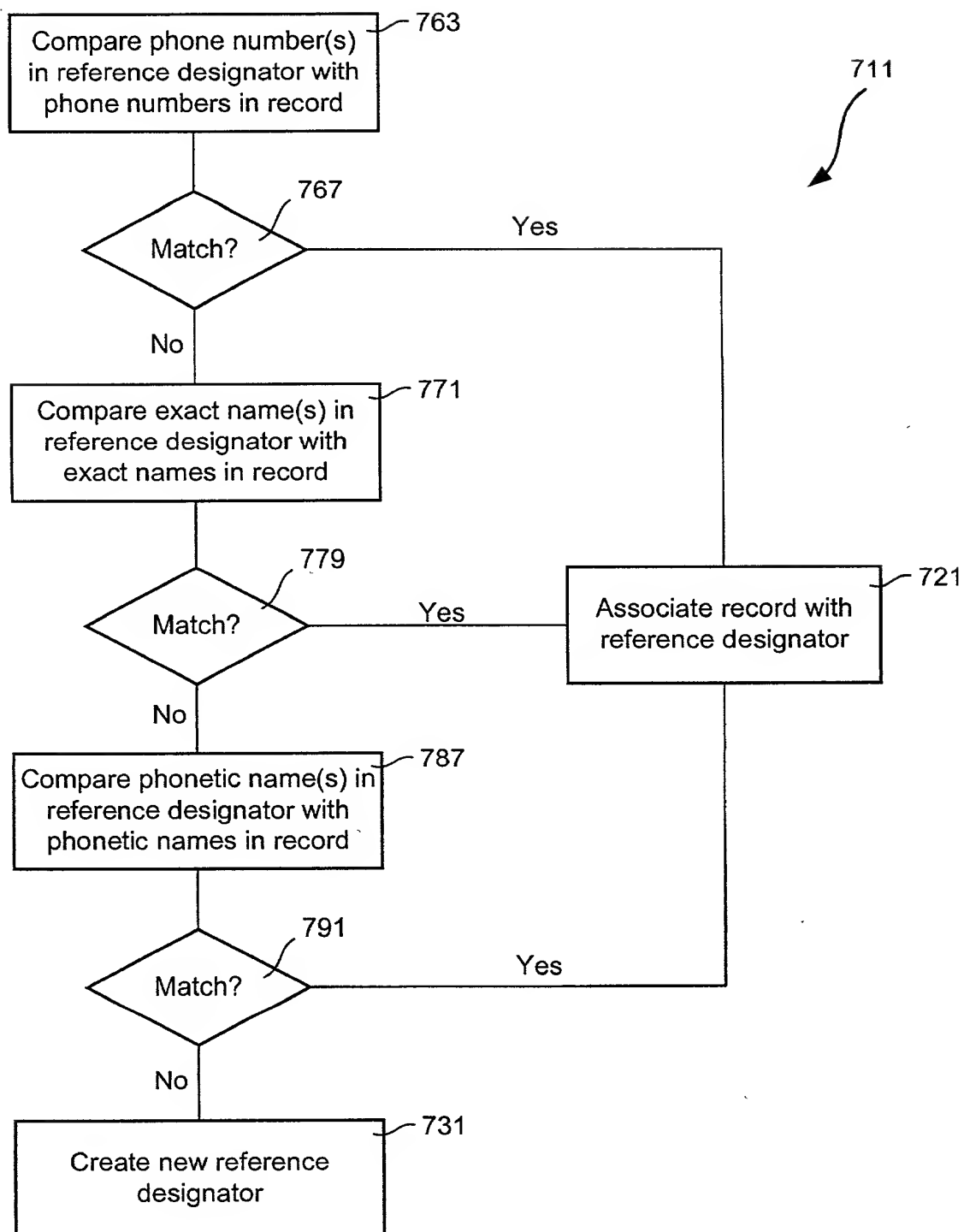


FIG. 7c

Reference Designator	NameLast	NameFirst	Phone	MasterLocationIn	MasterLocationOut	TimeStamp
555a	Alexander (R0)	John (R0)	7680000000 (R0)	84604 (R0)	14850 (R0)	01/15/2002
	Jones (R0)	Edward (R0)	5555555555 (R0)			
810a	Nelsen (R1)	Jack (R1)	1111111111 (R1)	76543 (R1)	89004 (R1)	01/18/2002
	Smart (R1)	Edna (R1)	3333333333 (R1)			

FIG. 8a

Reference Designator Number	NameLast	NameFirst	Phone	MasterLocationIn	MasterLocationOut	TimeStamp
000000001	Alexander (R0)	John (R0)	7680000000 (R0)	84604 (R0)	14850 (R0)	01/15/2002
	Jones (R0)	Edward (R0)	5555555555 (R0)			
	Nelsen (R1)	Jack (R1)	1111111111 (R1, R2)	76543 (R1, R2)	89004 (R1, R2)	01/18/2002
000000002	Smart (R1, R2)	Edna (R1, R2)	3333333333 (R1)			
	Johnson (R2)	Bob (R2)				

FIG. 8b

500e

Reference Designator Number	NameLast	NameFirst	Phone	MasterLocationIn	MasterLocationOut	TimeStamp
555a	Alexander (R0)	John (R0)	7680000000 (R0)	84604 (R0)	14850 (R0)	01/15/2002
	Jones (R0)	Edward (R0)	5555555555 (R0)			
	Nelsen (R1)	Jack (R1)	1111111111 (R1,R2)	76543 (R1, R2)	89004 (R1, R2)	01/18/2002
810b	Smart (R1, R2)	Edna (R1, R2)	3333333333 (R1)			
	Johnson (R2)	Bob (R2)				
	Nelson (R3)	Sally (R3)	2222222222 (R3)	865434 (R3)	000102 (R3)	01/18/2002
820	Character (R3)	Bert (R3)	7865786578 (R3)			

500f

FIG. 8c

Reference Designator Number	NameLast	NameFirst	Phone	MasterLocationIn	MasterLocationOut	TimeStamp
555a	Alexander (R0)	John (R0)	7680000000 (R0)	84604 (R0)	14850 (R0)	01/15/2002
	Jones (R0)	Edward (R0)	5555555555 (R0)			
	Nelsen (R1)	Jack (R1)	1111111111 (R1,R2)	76543 (R1, R2)	89004 (R1, R2)	01/19/2002
810c	Smart (R1)	Edna (R1)	3333333333 (R1,R4)	89004 (R4)	SA (R4)	
	Johnson (R2)	Bob (R2)	1414141414 (R4)			
	Smith (R4)	John (R4)				
820	Nelson (R3)	Sally (R3)	2222222222 (R3)	865434 (R3)	000102 (R3)	01/18/2002
	Character (R3)	Bert (R3)	7865786578 (R3)			

FIG. 8d

FIG. 8e is a schematic diagram of a data structure 850, which may be a table or a database, for storing information about a group of individuals. The data structure 850 includes a plurality of rows 855 and a plurality of columns 857. The columns 857 are labeled: Reference Designator Number, NameLast, NameFirst, Phone, MasterLocationIn, MasterLocationOut, and TimeStamp. The rows 855 are grouped into three sections: 555a, 810d, and 820. Section 555a contains the first two rows, section 810d contains the next six rows, and section 820 contains the last two rows. A weight of 500g is indicated by an arrow pointing to the table.

500g

Reference Designator Number	NameLast	NameFirst	Phone	MasterLocationIn	MasterLocationOut	TimeStamp
000000001	Alexander (R0)	John (R0)	7680000000 (R0)	84604 (R0)	14850 (R0)	01/15/2002
	Jones (R0)	Edward (R0)	5555555555 (R0)			
000000002	Nelson (R1)	Jack (R1,R2)	1111111111 (R1,R2)	76543 (R1, R2)	89004 (R1, R2)	01/19/2002
	Nelsen (R5)		3333333333 (R1,R4)	89004 (R4)	SA (R4)	
	Smart (R1)	Edna (R1)	1414141414 (R4)	87600 (R5)	76500 (R5)	
	Johnson (R2)	Bob (R2)	1111999999 (R5)			
	Smith (R4)	John (R4)	6543897000 (R5)			
	Fix (R5)	Needmy (R5)				
000000003	Nelson (R3)	Sally (R3)	2222222222 (R3)	865434 (R3)	000102 (R3)	01/18/2002
	Character (R3)	Bert (R3)	7865786578 (R3)			

FIG. 8e

Reference Designator Number	NameLast	NameFirst	Phone	MasterLocationIn	MasterLocationOut	TimeStamp
000000001	Alexander (R0)	John (R0)	7680000000 (R0)	84604 (R0)	14850 (R0)	01/15/2002
	Jones (R0)	Edward (R0)	5555555555 (R0)			
	Nelson (R1,R6)	Jack (R1,R2,R6)	1111111111 (R1,R2)	76543 (R1, R2)	89004 (R1, R2)	01/19/2002
	Nelsen (R5)		3333333333 (R1,R4)	89004 (R4)	SA (R4)	
	Smart (R1)	Edna (R1)	1414141414 (R4)	87600 (R5)	76500 (R5)	
000000002	Johnson (R2)	Bob (R2)	1111999999 (R5)	78950 (R6)	09876 (R6)	01/18/2002
	Smith (R4)	John (R4)	6543897000 (R5)			
	Fix (R5)	Needmy (R5)	1111188888 (R6)			
	Rose (R6)	Kevin (R6)	5467844444 (R6)			
	Nelson (R3)	Sally (R3)	2222222222 (R3)	865434 (R3)	000102 (R3)	
000000003	Character (R3)	Bert (R3)	7865786578 (R3)			

FIG. 8f

853

500h

555a

810e

820



FIG. 8h is a diagram illustrating a data structure for a database. The diagram shows a table with columns for Reference Designator Number, NameLast, NameFirst, Phone, MasterLocationIn, MasterLocationOut, and TimeStamp. The table is divided into three sections: 555b, 810f, and 820. Section 555b contains data for Reference Designator Number 000000001, including NameLast (Alexander (R0), Corporation (R8), Jones (R0,R8)), NameFirst (John (R0), Sales (R8), Edward (R0), Ed (R8)), Phone (7680000000 (R0), 5555555555 (R0), 5555555554 (R8), 76543210 (R8)), MasterLocationIn (84604 (R0,R8)), MasterLocationOut (14850 (R0,R8)), and TimeStamp (01/18/2002). Section 810f contains data for Reference Designator Number 000000002, including NameLast (Nelson (R1,R6), Nelsen (R5), Smart (R1), Johnson (R2), Smith (R4), Fix (R5), Rose (R6)), NameFirst (Jack (R1,R5,R6), Edna (R1), Betty (R7), Bob (R2), John (R4), Needmy (R5), Kevin (R6)), Phone (1111111111 (R1,R2), 3333333333 (R1,R4,R7), 1414141414 (R4), 1111999999 (R5), 6543897000 (R5), 1111188888 (R6), 5467844444 (R6), 5656565656 (R7)), MasterLocationIn (76543 (R1, R2), 89004 (R4), 87600 (R5), 78950 (R6)), MasterLocationOut (89004 (R1, R2), SA (R4), 76500 (R5), 09876 (R6)), and TimeStamp (01/19/2002). Section 820 contains data for Reference Designator Number 000000003, including NameLast (Nelson (R3), Character (R3)), NameFirst (Sally (R3), Bert (R3)), Phone (2222222222 (R3), 7865786578 (R3)), MasterLocationIn (865434 (R3)), MasterLocationOut (000102 (R3)), and TimeStamp (01/18/2002). A scale bar indicates 500m.

500m

Reference Designator Number	NameLast	NameFirst	Phone	MasterLocationIn	MasterLocationOut	TimeStamp
000000001	Alexander (R0)	John (R0)	7680000000 (R0)	84604 (R0,R8)	14850 (R0,R8)	01/18/2002
	Corporation (R8)	Sales (R8)	5555555555 (R0)			
	Jones (R0,R8)	Edward (R0)	5555555554 (R8)			
		Ed (R8)	76543210 (R8)			
000000002	Nelson (R1,R6)	Jack (R1,R5,R6)	1111111111 (R1,R2)	76543 (R1, R2) 89004 (R4) 87600 (R5) 78950 (R6)	89004 (R1, R2) SA (R4) 76500 (R5) 09876 (R6)	01/19/2002
	Nelsen (R5)		3333333333 (R1,R4,R7)			
	Smart (R1)	Edna (R1)	1414141414 (R4)			
		Betty (R7)	1111999999 (R5)			
	Johnson (R2)	Bob (R2)	6543897000 (R5)			
	Smith (R4)	John (R4)	1111188888 (R6)			
	Fix (R5)	Needmy (R5)	5467844444 (R6)			
000000003	Rose (R6)	Kevin (R6)	5656565656 (R7)	865434 (R3)	000102 (R3)	01/18/2002
	Nelson (R3)	Sally (R3)	2222222222 (R3)			
	Character (R3)	Bert (R3)	7865786578 (R3)			

FIG. 8h



FIG. 8k

500n

Reference Designator Number	NameLast	NameFirst	Phone	MasterLocationIn	MasterLocationOut	TimeStamp
000000001	Alexander (R0)	John (R0)	7680000000 (R0)	84604 (R0,R8)	14850 (R0,R8,R9)	01/19/2002
	Corporation (R8)	Sales (R8)	5555555555 (R0)	34576 (R9)		
	Jones (R0,R8,R9)	Edward (R0,R9)	5555555554 (R8)			
		Ed (R8)	76543210 (R8,R9)			
000000002	Nelson (R1,R6)	Jack (R1,R5,R6)	1111111111 (R1,R2)	76543 (R1, R2)	89004 (R1, R2)	01/19/2002
	Nelsen (R5)		3333333333 (R1,R4,R7)	89004 (R4)	SA (R4)	
	Smart (R1)	Edna (R1)	1414141414 (R4)	87600 (R5)	76500 (R5)	
		Betty (R7)	1111999999 (R5)	78950 (R6)	09876 (R6)	
	Johnson (R2)	Bob (R2)	6543897000 (R5)			
	Smith (R4)	John (R4)	1111188888 (R6)			
	Fix (R5)	Needmy (R5)	5467844444 (R6)			
	Rose (R6)	Kevin (R6)	5656565656 (R7)			
000000003	Nelson (R3)	Sally (R3)	2222222222 (R3)	865434 (R3)	000102 (R3)	01/18/2002
	Character (R3)	Bert (R3)	7865786578 (R3)			

FIG. 8k

FIG. 8m

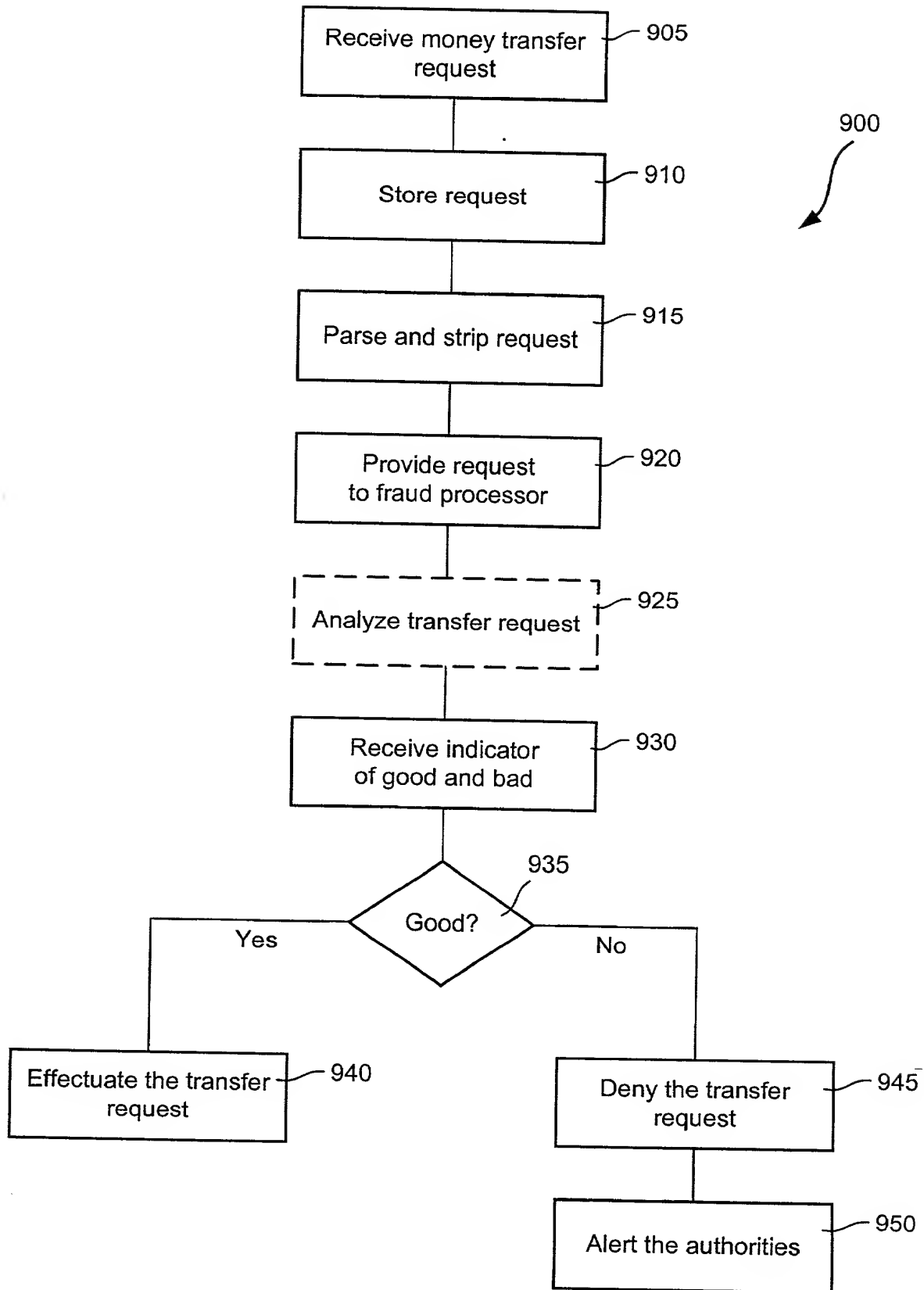


FIG. 9a

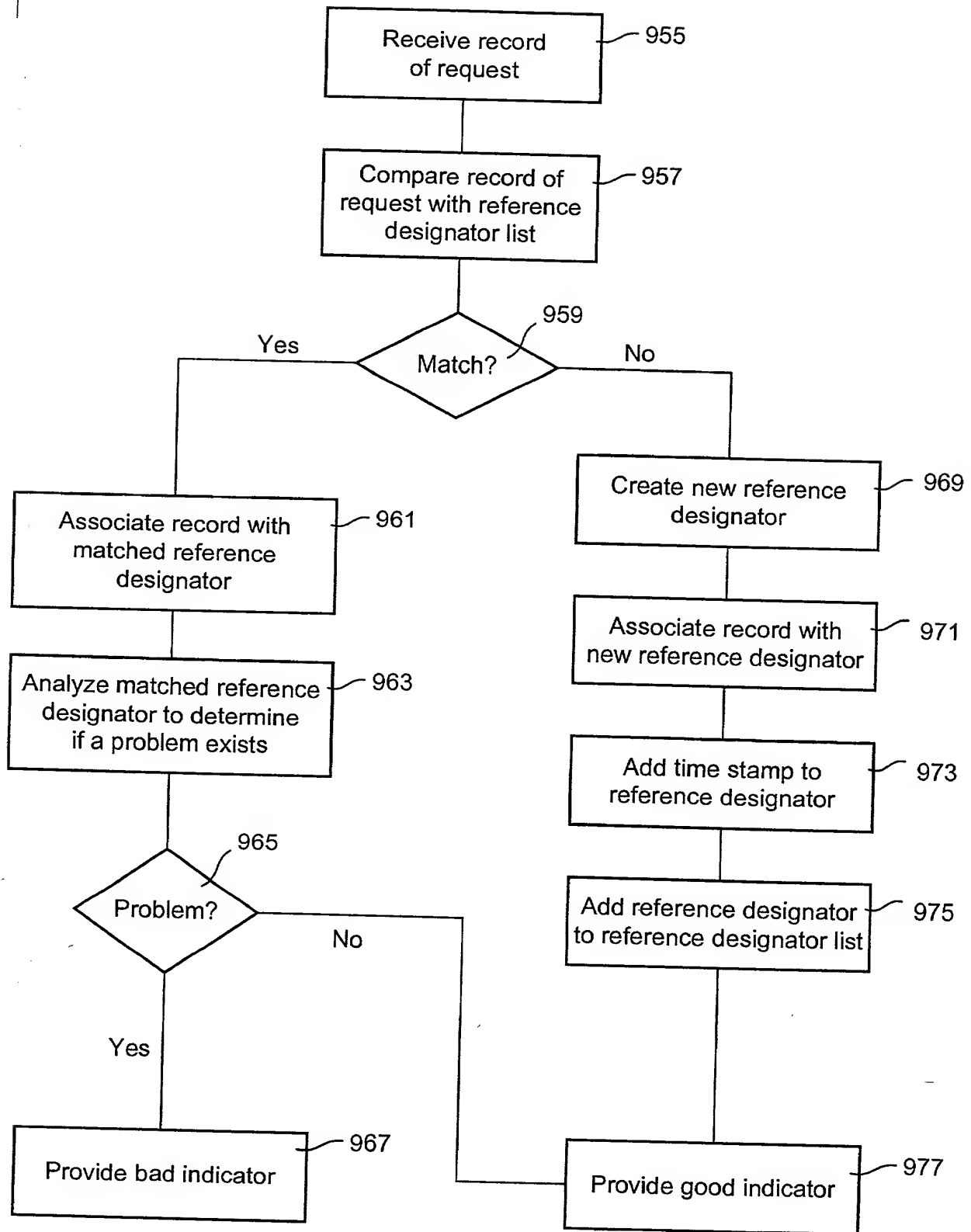
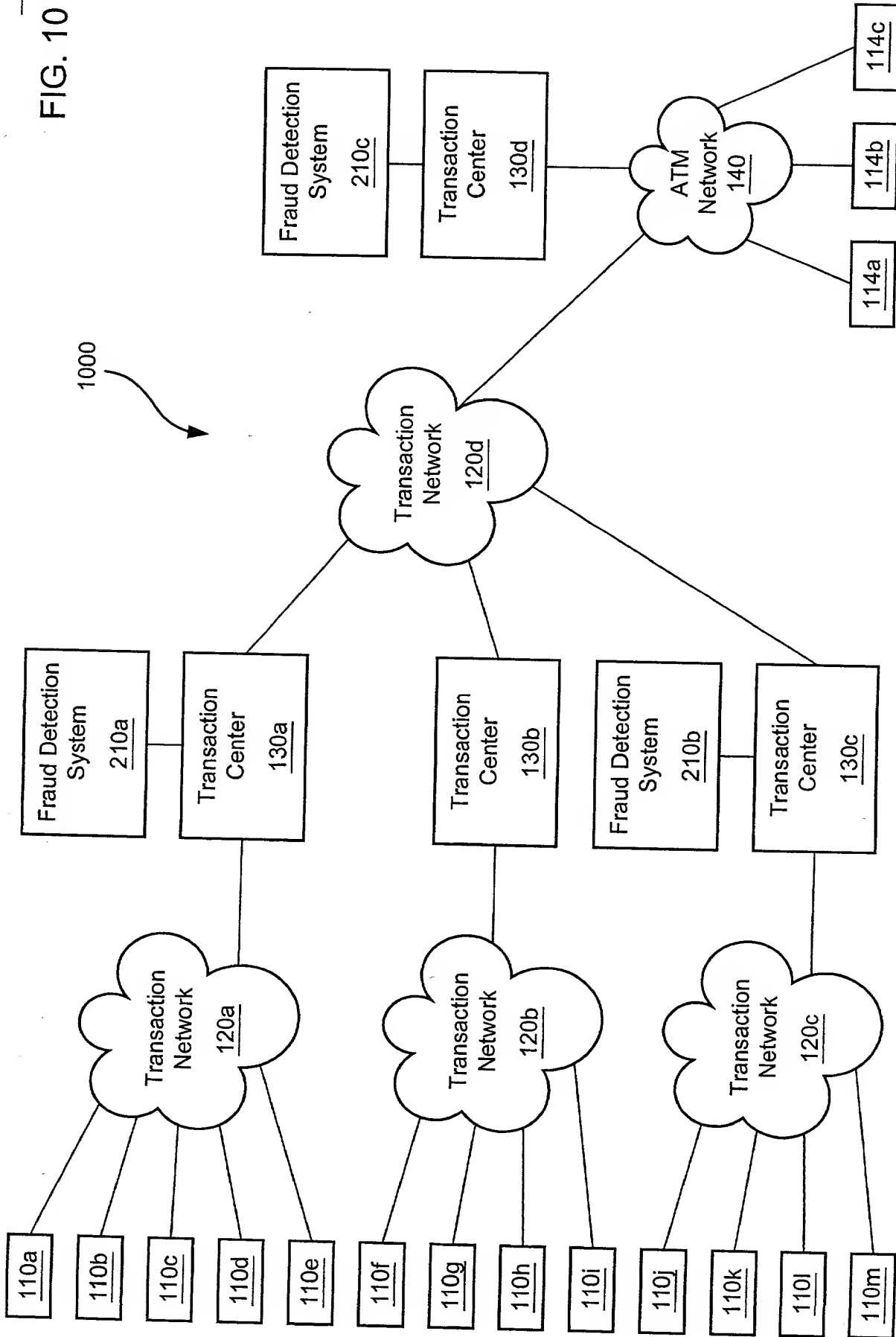


FIG. 9b



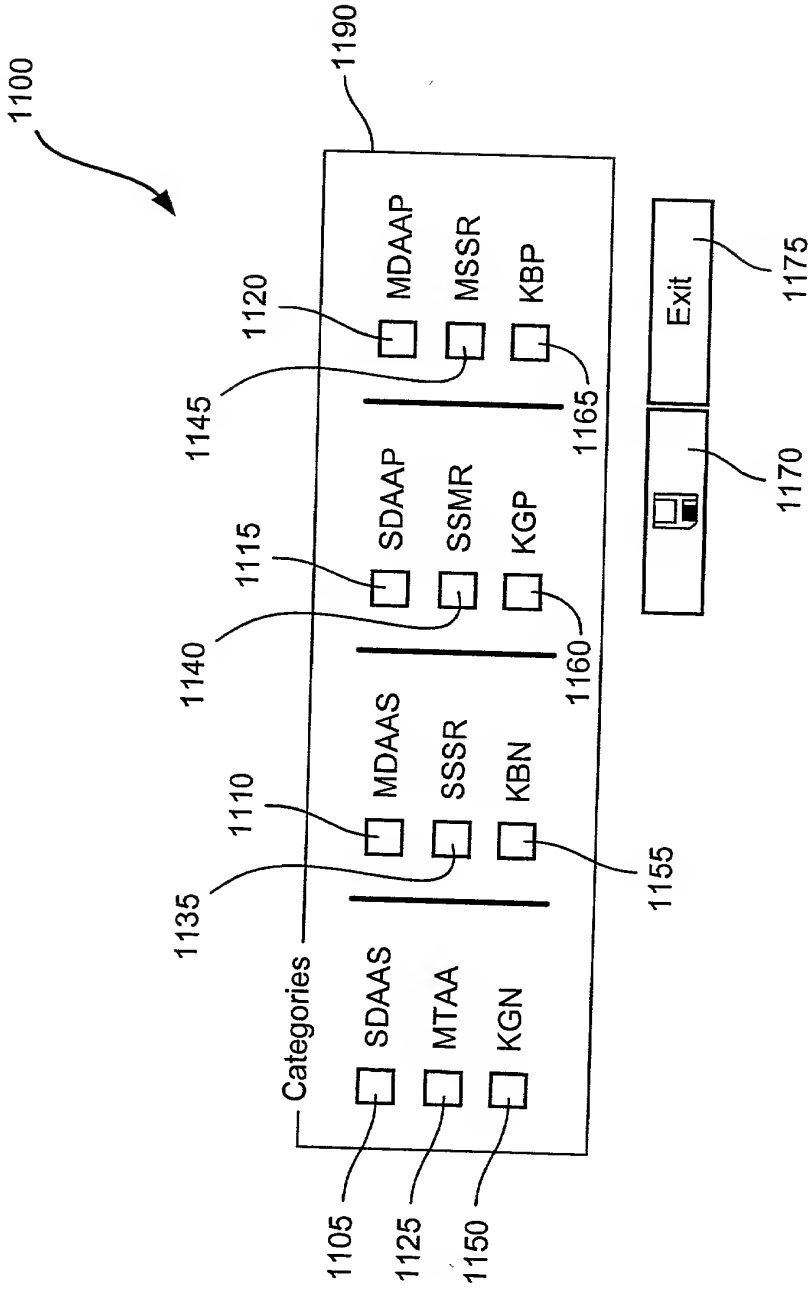


FIG. 11